

CARIBBEAN REGIONAL TRAINING MANUAL

ENVIRONMENTALLY SOUND TOURIST FACILITY DESIGN AND DEVELOPMENT FOR THE TOURISM INDUSTRY



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EXECUTIVE SUMMARY

Environmentally Sound Tourist Facility Design and Development is presented as an educational and instructional Manual to assist in the training of environmentalists and development planners and to fill gaps in knowledge related to environmental aspects of tourism activities.

The Modules which have been developed for this Manual are centered around specific themes including the environmental impacts of tourism facility design, the essential resources of coastal environmental systems, local and regional coastal regulatory systems, sustainable project planning, sustainable infrastructure and development masterplan, building designs and an outline of operational maintenance and monitoring systems.

It has been recognised that "greener tourism" within the Wider Caribbean region cannot happen without fundamental changes in the process of project/facility design and development. The conventional processes have produced a current stock of tourism developments which are not sustainable. A new proposed Central Development Process is being advocated which is more holistic in approach and more environmentally focused. This new process offers a framework for the entire development process, from project pre-planning and site selection through facility post-occupancy.

The natural resources of the region must be taken into account when designing for tourism. This extends beyond recognition of the natural systems to include resource management, environmental economics and general development planning. Resources are generally categorised as "stock resources" and "flow resources". Stock resources are developed over time and provide raw materials for general use, while flow resources are renewable resources as they are regenerated over a relatively short time span. Sustainable systems design demands a balance between the two sets of resources.

Inappropriate design and siting of tourism facilities impacts negatively on the environment. Natural events often wreak havoc on the environment, but man-made designs can determine the level of impact of these natural phenomena on the environment. Poorly designed facilities are at greater risk to devastation. In the event of disasters, critical facilities that are likely to suffer include high-density facilities, transportation nodes, utility services and industrial, agricultural and social infrastructures.

Sustainable planning is, therefore, a critical issue in the siting of tourism facilities. This involves ecologically-based strategies which are environmentally, culturally and economically-sound. All stakeholders including the public sector must begin by formulating and reviewing potential sites before final selection for development. Environmental Impact Assessments and Carrying Capacity Instruments are tools which can assist in this process.

Sustainable systems such as wastewater treatment and renewable energy systems must be considered, where possible. Factors to be considered include appropriate technology, environmental standards, best practice scenarios, operation, and maintenance and monitoring.

The new sustainable process incorporates guidelines for low-impact tourist facility design and development. It offers a step-by-step design process that departs from the traditional design processes. It is an integrated team design approach that incorporates the goals of sustainability as outlined in Agenda 21 and other blueprints, as well as the hallmarks of environmental stewardship.

FOREWORD

In 1983, the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, the Cartagena Convention, was adopted and serves as the legal framework for the Caribbean Environment Programme. It is the only comprehensive environmental umbrella treaty for the region. Two Protocols have been adopted on specific aspects of environmental management: the **Protocol Concerning Cooperation in Combatting Oil Spills** and the **Protocol Concerning Specially Protected Areas and Wildlife**. A third Protocol Concerning Land-based Sources of Marine Pollution is under development.

The Regional Programme for Specially Protected Areas and Wildlife in the Wider Caribbean Region (SPAW) was designed to implement the provisions and requirements of the SPAW Protocol. In keeping with the objectives and spirit of the SPAW Programme, the Caribbean Environment Programme (CEP) embarked on a new but integral component of the Programme - the Caribbean Environment Network (CEN) Project - aimed at improving environmental quality and the conservation of natural resources of the coastal and marine environment.

The CEN Project focused on reducing environmental impacts by tourism, given the importance and scope of the industry in the Wider Caribbean and its close linkages with various marine and coastal habitats in the region. It was designed in response to the Regional Agenda for Action of the International Coral Reef Initiative (ICRI), with the input of relevant partners in the region. This Project was a joint venture with the United States Agency for International Development (USAID) in Jamaica as the main donor agency with the support of a Technical Consultative Committee established with key agencies in the region including: British Development Division (BDD/ODA), Caribbean Tourism Organization (CTO), Caribbean Development Bank (CDB), French Cooperation Division, Inter-American Development Bank (IDB), Pan-American Health Organization (PAHO), University of the West Indies- Centre for Marine Sciences, United Nations Development Programme (UNDP) and the World Bank.

This Manual is one in a series of three products emanating from the CEN Training Programme. They were developed and implemented to fill gaps in knowledge related to environmental aspects of tourism and the marine environment in three major areas: Solid and Wastewater Management; Design and Siting of Tourism Facilities; and Integrated Coastal Area Management.

The above areas addressed by the Training Programme evolved mainly from a Training Needs Assessment commissioned by UNEP from the Consortium of Caribbean Universities for Natural Resource Management (CCUNRM), and a report prepared by the Panos Institute on Improving Training and Public Awareness on Caribbean Coastal Tourism. The Training Needs Assessment exercise had inputs from a Consultation Meeting organised by CCUNRM (Puerto Rico, 22-23 October 1996) and a survey through questionnaires sent to a wide variety of stakeholders in the region based on a set of criteria including experiences in education, tourism and marine environment issues. Care was taken to include a diversity of Caribbean countries in terms of size, language and tourism activities.

The overall objective of the Training Programme was to assist in the development of institutional capacity in the region on coastal resources and ecosystem management related to the tourism industry. Seven courses in English and Spanish were delivered under the CEN Project with over 100 participants from the Dutch, English, French and Spanish Speaking Caribbean, representing 28 countries (including territories and dependencies) in the region. Participants also represented a cross-section of public, private and academic institutions involved in different aspects of tourism and coastal environment issues, such as developers, hotel managers, coastal area planners and managers, technical staff from Governments and water conservation authorities.

Materials from the Training Courses have been compiled and consolidated to produce this series of Training Manuals, which it is hoped will serve as reference materials for wide dissemination and assist in promoting replicability of the training experience throughout the Wider Caribbean.

A number of other regional and international organisations have embarked on programmes to improve environmental practices towards achieving sustainable tourism in the region. It was the goal of the USAID/UNEP CEN Project to contribute to these efforts in support of sustainable use and conservation of coastal zones and resources in the Wider Caribbean region.

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THE MANUAL

OBJECTIVES:

This Training Manual is being presented as a practical instructional tool to assist in human resource strengthening for the development of tourism which is environmentally sustainable in the Wider Caribbean Region. It introduces the concept and presents a new framework for project development based on sustainable infrastructure and practices for the Design and Siting of Tourism Facilities and their value to the tourism industry. Although the Manual is not intended to serve as a textbook for the tourism industry or as final authoritative guidelines, it provides overall principles based on the current state of knowledge for the sustainable design and siting of tourism facilities.

TARGET AUDIENCE:

This Manual was produced as an introduction to the design and siting of tourism facilities for all of those who are actively involved or interested in the planning, development and construction processes of facilities, and their environmental dimension, within the tourism sector and the environmental community alike. These include hotel and tourism facility developers, tourism development companies, coastal managers and town planning staff, architects and engineers, as well as other stakeholders from local community associations and policy decision-makers.

Many issues addressed by the Manual are also of relevance to students and teachers in tourism at engineering, architectural and environmental schools and universities.

CONTENTS AND USE:

Seven Modules have been developed to introduce general background topics in early modules, which will contribute to a proper understanding of subsequent modules. These modules are geared towards reducing the potential environmental impacts of the tourism industry on coastal and marine resources in the Wider Caribbean Region and can be summarised as follows:

- | | |
|------------|---|
| Module 1: | Examines the environmental impact of tourism facility design, and provides images of high and low impact tourism facilities |
| Module 2: | Introduces essential resources of coastal environmental systems and describes the common environmental damages caused by poor tourist facility design |
| Module 3 : | Focuses on local and regional coastal regulatory systems and gives an overview of regulatory instruments |

- Module 4: Highlights sustainable project planning and the importance of planning in project development
- Module 5: Introduces the concept of sustainable infrastructure and sustainable development masterplan.
- Module 6: Provides sustainable building design guidelines including a design checklist
- Module 7: Outlines monitoring guidelines for project sustainability with an introduction to Operations Maintenance and Monitoring (OM&M).

Users are expected to utilize the information presented in the Manual to advance the environmental design, construction and operation of tourism facilities as well as, as a tool for the assessment of environmentally sensitive developments including training opportunities, in their specific field of work.

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